

ABSTRACT

A variable geometry turbine has an annular inlet passageway defined between a radial wall of a moveable wall member and a facing wall of the turbine housing. The moveable wall member is mounted within an annular cavity provided within the housing and having inner and outer annular surfaces. An annular seal is disposed between an annular flange of the moveable wall member and the adjacent inner or outer annular surface of the cavity. One or more inlet bypass passages are provided in the annular flange or said adjacent cavity surface, such that the annular seal and bypass passageways move axially relative to one another as the moveable wall member moves. The annular seal and the or each bypass passage are axially located such as the annular wall member approaches the facing wall of the housing the or each bypass passage permits the flow of exhaust gas through said cavity to the turbine wheel thereby bypassing the annular inlet passageway.